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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,584	07/31/2001	Jin-Shan Wang	82817HEC	1795

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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/918,584	WANG ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 10-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

[Handwritten signature]

DETAILED ACTION

1. All outstanding rejections are overcome by applicants' amendment filed 6/9/05.

The new grounds of rejection set forth below are necessitated by applicants' amendment and thus, the following action is final.

Claim Objections

2. Claims 11-13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The objection is adequately set forth in paragraph 2 of the office action mailed 4/8/05 and is incorporated here by reference.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 10-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to only recite “water-soluble hyperbranched polymeric dye comprising a hyperbranched polymer having a dye chromophore and a hydrophilic group incorporated into the polymer base chain”, i.e. specific recitation of hydrophilic groups has been deleted. It is the examiner’s position that this change fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the amendment to present claim 1, applicants note that polymers recited on page 4, lines 14-19 and page 7, lines 13-16 are water-soluble polymers. It is agreed that page 4, lines 14-19 provides support for the recitation of water-soluble polyamide. With respect to page 7, lines 13-16, it is noted that these polymers would be water-soluble depending on the dye and/or monomers used to prepare them.

As further support for the above amendment, applicants point to page 6, line 22-page 7, line 12, page 11, line 19-page 12, line 29, and the exemplary polymer structures on pages 8-9 of the present specification.

However, while these structures contain specific types of hydrophilic groups, these portions do not provide support for the broad recitation of “hydrophilic groups” as presently claimed. It is noted that there is no disclosure in the present specification of the phrase “hydrophilic”. Thus, support for this phrase must be found in the specific recitations of hydrophilic groups found in the present specification. The present broad recitation of “hydrophilic group” in the present claims encompasses all types of hydrophilic groups for which there is no support in the present specification.

Response to Argument regarding claim objection

5. In the office action mailed 4/8/05, the examiner argued that each of claims 11-13 failed to further limit the scope of the claims on which they depended, namely, claim 1, given that the scope of claims 11, 12, and 13 were each broader than claim 1.

In response, applicants argue that since claims 11-13 are dependent claims, they must include all the features of claim 1 which requires that the hyperbranched polymeric dye be water-soluble and have hydrophilic group incorporated into its base chain.

However, the examiner's objection against claims 11-13 remains given that while any of M^1 , M^2 , etc. can contain a hydrophilic group, there is nothing in claims 11-13 that requires that these substituents do in fact contain such hydrophilic group. That is, claim 11, for instance, is broader than claim 1 given that claim 11 is open to all R^1 , M^1 , and M^2 including those not containing hydrophilic groups. As set forth on pages 5-6 of the present specification, M^1 and M^2 need not necessarily contain hydrophilic group. It is agreed that given that claim 11 depends on claim 1 that claim 11 necessarily contain all the limitations of claim 1. However, this is why it is the examiner's position that claim 11 is broader than claim 1. Claim 11 requires water-soluble hyperbranched polymeric dye but given that there is nothing in claim 11 which requires that any of the substituents contain hydrophilic group and given that, as seen in the present specification, these substituents need not contain a hydrophilic group, it is clear that claim 11 is broader than claim 1 given that the claim encompasses both hyperbranched polymer that contains hydrophilic group incorporated into its base chain and hyperbranched polymer that does not contain hydrophilic group incorporated into its base chain.

Response to Arguments regarding 35 USC 112, 1st paragraph rejection

6. In applicants' amendment filed 6/9/05, applicants note that the recitation of specific hydrophilic groups from claim 1, i.e. ether group, substituted amine, etc., have been deleted from the claim given that they did not result in the allowance of the claims.

However, as set forth on pages 4-5 for the office action mailed 4/8/05, it was the examiner's position that there was support for the recitation of carbonyl group and carboxyl group. Further, it was the examiner's position that there was support for specific types of ether groups and substituted amine groups but no support for their broad recitation. Finally, the examiner stated that there did not appear to be support for the recitation of quaternary amine group.

However, if applicants were to recite that the hydrophilic group is carbonyl, carboxyl, and any other explicitly recited hydrophilic groups as found in the present specification including any specific types of ether and substituted amine groups found in the present specification in claim 1, the 35 USC 112, first paragraph rejection would be overcome. Given that there is no recitation of "water-soluble" (with the exception of with respect to polyamide) or "hydrophilic" in the present specification, it is necessary for applicants to explicitly recite specific types of hydrophilic groups.

Applicants argue that there is support in the present specification to recite that the hyperbranched polymeric dye is water-soluble and that the hyperbranched polymer contains hydrophilic group in its base chain. It is noted that it is not the examiner's position that there is no support to recite that the hyperbranched polymer has hydrophilic groups incorporated into its

base chain but rather that there is only support for the recitation of certain specific types of hydrophilic groups.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
8/20/05